What is claimed is:

1. A method for producing a puncture coded signal from a data signal, where the data signal comprises a sequence of data blocks, said method comprising;

generating a channel coded signal from the data signal, where said channel coded signal has, for each data block in said sequence of data blocks, a number of bits equal to a number of bits in a particular data block plus an initial number of error correcting bits; and

adjusting, in response to a channel quality measure of an information channel, the number of error correcting bits to generate said puncture coded signal from said channel coded signal.

2. The method of claim 1 further comprising:

receiving a control signal comprising said channel quality measure.

3. The method of claim 1 wherein said adjusting comprises:

increasing the number of error correcting bits if said channel quality measure indicates a low information channel quality.

4. The method of claim 1 wherein said adjusting comprises:

decreasing the number of error correcting bits if said channel quality measure indicates a high information channel quality.

5. The method of claim 1 wherein said channel quality measure comprises a signal to noise ratio or a bit error rate.

6. The method of claim 1 wherein said channel coded signal is generated in accordance to a channel code comprising at least one of a Reed-Solomon block code and a Trellis convolutional code.

7. The method of claim 6 wherein, for every four bits of said data signal, said channel coded signal comprises an eight bit Trellis convolutional code having four error correcting bits.

8. The method of claim 7 wherein said puncture coded signal contains between one to four error correcting bits for every four bits of said data signal, where the number of error correcting bits in said puncture coded signal is dependent on said channel quality measure.

9. The method of claim 1 wherein the information channel comprises a wireless local area network between a gateway and a receiver coupled to a network appliance.

10. The method of claim 1 wherein said data signal comprises at least one signal from a group comprising analog cable television, digital cable television, plain old telephone signals, digital subscriber line signals, satellite television signals, over-the-air television signals and any combination thereof.

11. A method for transmitting a data signal over an information channel, where the data signal comprises a sequence of data blocks, said method comprising;

generating a channel coded signal from the data signal, where said channel coded signal has, for each data block in said sequence of data blocks, a number of bits equal to the number of bits in a particular data block plus an initial number of error correcting bits;

reducing the initial number of error correcting bits in response to a control signal comprising a channel quality measure;

generating a puncture coded signal having, for each data block in said sequence of data blocks, a total number of bits equal to said input data signal and said reduced number of error correcting bits;

measuring a channel quality measure from said generated puncture coded signal; and

generating said control signal comprising said channel quality measure to a back channel.

12. The method of claim 11 further comprising:

receiving said generated puncture coded signal over the information channel;

decoding said received puncture coded signal; and

converting said decoded puncture coded signal into a suitable format for a network appliance.

13. Apparatus for producing a puncture coded signal from a data signal where the data signal comprises a sequence of data blocks, said apparatus comprising:

an adaptive controller for adjusting in response to a channel quality measure for an information channel, a number of error correcting bits to transmit in said puncture coded signal; and

a puncture encoder for generating, said puncture coded signal from the data signal, where said puncture coded signal has, for each data block in said sequence of data blocks, a number of bits equal to a number of bits in a particular data block plus an adjusted number of error correcting bits.

14. The apparatus of claim 13 further comprising:

a back channel receiver for receiving a control signal comprising said channel quality measure.

15. The apparatus of claim 13 wherein said puncture encoder comprises:

a conventional encoder for generating a channel coded signal from the data signal, where said channel coded signal has, for each data block in said sequence of data blocks, a number of bits equal to the number of bits in a particular data block plus an initial number of error correcting bits; and

a puncture processor for adjusting the initial number of error correcting bits of the channel coded signal to generate said puncture coded signal.

16. The apparatus of claim 15 wherein said conventional encoder comprises at least one of a Reed-Solomon encoder and a Trellis encoder, and said channel coded signal is generated in accordance to a channel code

comprising at least one of a Reed-Solomon block code and a Trellis convolutional code.

17. The apparatus of claim 16 wherein, for each data block comprising four bits in said sequence of data blocks, said channel coded signal comprises an eight bit Trellis convolutional coded signal with four error correcting bits.

18. The apparatus of claim 17 wherein said puncture coded signal contains between one to four error correcting bits for every four bits of said data signal, where the number of error correcting bits in said puncture coded signal is dependent on said channel quality measure.

19. The apparatus of claim 13 further comprising:

a channel evaluator for determining a channel measure for said puncture coded signal transmitted over the information channel; and

a back channel transmitter for generating a control signal indicative of said channel quality measure.

20. The apparatus of claim 13 further comprising:

a puncture decoder for decoding said puncture coded signal transmitted over the information channel; and

an appliance processor for converting said decoded puncture coded signal into a suitable format for a network appliance.

21. The apparatus of claim 13 wherein said adaptive controller increases the number of redundancy bits if said channel quality measure indicates a low information channel quality.

22. The apparatus of claim 13 wherein said adaptive controller decreases the number of error correcting bits if said channel quality measure indicates a high information channel quality.

23. The apparatus of claim 13 wherein said channel quality measure comprises a signal to noise ratio or a bit error rate.

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24. The apparatus of claim 13 wherein the information channel comprises a wireless local area network between a gateway and a receiver coupled to a network appliance.

25. The apparatus of claim 13 wherein said data signal comprises at least one signal from a group comprising analog cable television, digital cable television, plain old telephone signals, digital subscriber line signals, satellite television signals, over-the-air television signals and any combination thereof.